A NEW SET OF CLAIMS FOR SUBSTITUTION UNDER ARTICLE 19

5 What is claimed is:

- 22. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and carbon black at a weight rate in a range of 100:1~15 into a particular shape and curing a mixture, wherein the carbon flexible heating structure is a reinforcing material of a conductive composition filled with short staples.
- 23. The carbon flexible heating structure of claim 22, wherein the diameter of the short staple is 1 through 50 μm and the short staple is one of a glass fiber, a carbon fiber, and a graphite fiber.
- 24. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and carbon black at a weight rate in a range of 100:1~15 into a particular shape and curing a mixture, wherein the carbon flexible heating structure has the shape of a mesh, and
 25 wherein the mesh is a fabric made of a woof and a warp and has port portions formed longer than the woof or the warp of the

wherein the mesh is a fabric made of a woof and a warp and has port portions formed longer than the woof or the warp of the fabric, and the port portions are formed of a conductive metal wire having superior conductivity.

25. The carbon flexible heating structure of claim 24, wherein the port portions are tin-plated copper wires or silver wires.

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26. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and carbon black at a weight rate in a range of 100:1~15 into a particular shape and curing a mixture, wherein insulation coating formed of an insulating mixture

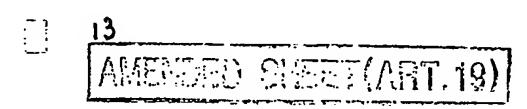
obtained by mixing liquid silicon rubber and a diluent and agitating a mixture is provided on a surface of the carbon flexible heating structure.

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- 27. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and graphite powder at a weight rate in a range of 100:10~150 into a particular shape and curing a mixture, wherein the carbon flexible heating structure is a reinforcing material of a conductive composition filled with short staples.
- 28. The carbon flexible heating structure of claim 27, wherein the diameter of the short staple is 1 through 50 μm and the short staple is one of a glass fiber, a carbon fiber, and a graphite fiber.
- 29. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and graphite powder at a weight rate in a range of 100:10~150 into a particular shape and curing a mixture, wherein the carbon flexible heating structure has the shape of a mesh, and wherein the mesh is a fabric made of a woof and a warp and has port portions formed longer than the woof or the warp of the fabric, and the port portions are formed of a conductive metal wire having superior conductivity.
 - 30. The carbon flexible heating structure of claim 29, wherein



the port portions are tin-plated copper wires or silver wires.

31. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and graphite powder at a weight rate in a range of 100:10~150 into a particular shape and curing a mixture,

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wherein insulation coating formed of an insulating mixture obtained by mixing liquid silicon rubber and a diluent and agitating a mixture is provided on a surface of the carbon flexible heating structure.